Understanding the effects of COVID-19 on health care and systems

Grégoire Mercier, Caroline Arquizan, François Roubille

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In *The Lancet Public Health*, Jules Mesnier and colleagues[1] used data from a French multicentre registry and observed a decrease in hospital admissions for acute myocardial infarctions following the lockdown, irrespective of patient characteristics and regional prevalence of COVID-19. Such findings are of high interest to clinicians and policy makers who are willing to improve the resilience of health systems and hospitals during pandemics or similar acute shocks, including extreme climatic events.

Possible explanations for this decrease in acute myocardial infarctions are numerous and remain conjectural. Other studies[2–5] have found similar results, but the underlying reasons remain unclear and are sometimes contradictory. To address these challenges, we must better understand the real limits and weaknesses of our health systems. To disentangle this complex array of interrelated causal factors, we suggest the following methodological approaches.

First, the timeframe of studies should be extended to the months following the end of the lockdown, to assess whether the decrease in hospitalisations persists over time. Additionally, comparison with the same months of previous years would account for the seasonality of acute myocardial infarction admissions.

Second, detailed data describing in-hospital management, such as time from hospital admission to primary percutaneous coronary intervention, could help us understand the organisational impact of both COVID-19 and the lockdown.

Third, the COVID-19 pandemic has been shown to increase pre-existing gender-based,[2] geographic, and socioeconomic disparities in access to health care.[6] It is crucial to systematically document the place of residence and socioeconomic status of patients with COVID-19.

Finally, extending the analysis to admissions for other acute vascular diseases, such as stroke,[7] would bring additional valuable insights into the respective roles of generic versus disease-specific factors, and into the role of local organisations and the importance of clinical features at admission. Such work is underway and we hope it provides useful explanations with wide pragmatic translations.

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